New structures for Large Enterprises as a reaction to the trends “Mobile Empowerment” and “Internet of Jobs”

Professor Dr.-Ing. José L. Encarnação  
TU Darmstadt, Germany  
Tel.: +49 6151 16-70875  
Email: jle@gris.informatik.tu-darmstadt.de
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• Visions for the future
• Evolution of the Internet
• Internet of Jobs
• Proposal for a Reaction of Large Enterprises to such an evolution (vision)
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• Summary
MEGA TRENDS

- Global *shortfall of formal jobs*
- Mobile *Empowerment*
- Internet of Jobs
GLOBAL JOB MARKET (1)

- World population: ca. 7 billion
- Adults (aged 15 and older): ca. 5 billion
- People that work or want to work: ca. 3 billion
- Existing formal jobs: ca. 1.2 billion
- Global shortfall of formal jobs: ca. 1.8 billion (25 % of world population)
GLOBAL JOB MARKET (2)

“Market volume” for the creation of “new jobs”

• World GPD in 2010: $ 60 trillion
  (sum of countries, total goods and services for one year)

• Estimated GDP in 2040: $ 200 trillion

• Difference is the new global mix of customers, employers, new businesses and equity: $ 140 trillion

- This is the “market volume” for the next evolution of the economy in the world.
STRATEGY FOR THE CREATION OF NEW JOBS

The “Market Volume” of $ 140 trillion will size the next economic revolution.

Therefore there is a strong need for a strategy for the large-scale creation of new jobs.

Such a strategy will be based on

• Mobile Empowerment

and on the

• “Internet of Jobs”
PARADIGM SHIFT

- **Fundamental Questions:**
  - The *digital revolution* – how are we living and working in the year 2030?
  - What is the **impact** of the digital revolution in the creation of value?
  - Will the digital revolution help to “leapfrog” steps in the creation of value chain in the socio-economic development?

- **Trends:**
  - **Mobility and Smart Technologies** (e.g. Smartphones, Smart-Tablets) are changing structures and processes in internet-based economies and industries
  - **Users have a new role** by directly participating and contributing to the economic value chain
  - **New opportunities** for business, services and new jobs
  - **New economies** based on Micro-Enterprises (VSME) and Expert Pools (Internet Communities of Experts)
  - **New opportunities** for the socio-economic development
TODAY’S SCENARIO: ICT-BASED INFORMATION SOCIETY

Humans

- Users
- Consumers

ICT-based Information Society

- Industry
  - Products
- Commerce
  - Applications
  - Services
- Society
  - Services
EVOLUTION OF THE INTERNET

- Internet of humans
- Internet of data
- Internet of services
- Internet of things
- Internet of processes

- Web
- Semantic-Web

Industry 4.0
- Mobile Empowerment

„all“ is digital

Digital Revolution

Internet of Jobs

Evolution
TOMORROW’S SCENARIO: MOBILE EMPOWERMENT

Humans

„Mobile Empowered“

based on:
- Mobility
- Smart Technologies

User; Consumer

Participate; Contribute; Produce

ICT-based Information Society + Internet of Processes

Industry
- Products

Commerce
- Applications
- Services

Society
- Services

Mobility
Smart Technologies

THE VISION FOR THE FUTURE

MOBILE EMPOWERMENT

Cloud

Internet of Processes

Humans with ICT Mobility and Smart Technologies

Integration; Control; Processing

Networks; Implementation; Delivery

Participation; Contributions; „Producers“
INTERNET OF PROCESSES

- Industry and Commerce outsource processes to the Internet
- Humans participate not only as “consumers”, but also as “producers” → user participation
- New structures in industry and commerce
- New business opportunities, new business models
- New business structures
- New jobs!
INTERNET OF PROCESSES IN THE DIFFERENT TYPES OF ECONOMIES

Different paths … a common goal!

**Formal Economies**
- “Internet of Freelancers”
- “Internet of jobs”
- New jobs based on outsourced processes from large and medium-size enterprises to SME to VSME

**Informal Economies**
- „Mobile Businesses and Mobile Services in your Pocket“
- Leapfrogging some stages of the socio-economic development (creation of value)
- Networks of VSME’s and of Expert Pools (Social Media; Internet Communities of Expertise)

MOBILE EMPOWERMENT
Based on the “Internet of Processes” and the “Mobile Empowerment” of Humans there will be an evolution to the large-scale creation of new jobs and the next “economic revolution”.

- **Technological shift**
  Shift to ubiquitous, smart technologies

- **HR Paradigm shift**
  Humans not only users and consumers, but will become developers and service suppliers, and will also be involved (participate) in the value creation chain.

- **Business shift**
  New, innovative business models shift towards human empowerment

“Internet of Jobs” integrates these three dimensions of the evolutionary process.
THE TYPICAL BUSINESS MODEL OF LARGE SOFTWARE DEVELOPMENT COMPANIES
THE EVOLUTION OF THE WAY INDUSTRY MANAGES THEIR PROCESSES

Today

Industry A

Marketing

Design

Development

Evolution

Industry A

Industry B

Industry C

Experts pool based on the “internet of jobs”

Tomorrow

Internet

Siemens-Gespräch

München
23.07.2013
THE VARIOUS STAGES OF RE-ALLOCATION OF PROCESSES TO EXTERNAL EXPERTS
THE FUTURE OF THE INTERNET OF PROCESSES: EVOLUTION TO THE “INTERNET OF JOBS”
THE THREE DIMENSIONS OF THE EVOLUTIONARY PROCESS

SOCIAL SHIFT

BUSINESS

Internet of Jobs

HUMAN RESOURCES

Mobile empowerment

PARADIGM SHIFT

TECHNOLOGY

Smart technologies and big data

TECHNOLOGICAL SHIFT

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München

23.07.2013
COMMUNITY BUILDING IN THE “INTERNET OF JOBS”

Industries

Internet of Jobs

Community building (social media networks of experts)

... Pools of experts ... Pools of experts ...

with expertise in a certain technology

with expertise in a certain application
PROPOSAL FOR A REACTION OF LARGE ENTERPRISES TO THIS EVOLUTION

• Collaboration Platforms as Centers of Gravity

Focus on:

• Management of collaboration
• IPR Management
• Control of strategically and economically key competences and processes
• Domain specific Collaboration Platforms
• Owner of the domain-specific Clouds
# COLLABORATION PLATFORMS

<table>
<thead>
<tr>
<th>Common contractual framework for all participants</th>
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<tbody>
<tr>
<td><strong>Common strategy</strong> for development, production, delivery, marketing and services</td>
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<tr>
<td><strong>Common rules</strong> for specification, documentation and integration</td>
</tr>
<tr>
<td><strong>Common set of tools, standards, methods, …</strong></td>
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<td>…</td>
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VISION FOR LARGE ENTERPRISES (SIEMENS) IN THIS ENVIRONMENT
“INTERNET WORK KIOSKS”: TRANSITION FROM “OFFICE BUILDINGS” TO “INTERNET WORK OFFICES”

- **Access to Collaboration Platforms** by Expert Communities
- **Location** near to where the experts are
- **Distributed, internet-based work environment**
- **Dynamic and adaptive** to the needs of value creation process
- **Dependent** on technology and application domain
INTERNET WORK KIOSKS: ACCESS TO THE COLLABORATION PLATFORMS

Internet Work Kiosks
(located where the pools of experts are)

Collaboration Platform

Management and Control offices
Mobile Empowerment

- **Humans participate and contribute** to the economic value chains
- This is **enabled by ICT mobility and smart technologies**
- Cloud integrates **“Internet of Processes”**
- New Economies based on **Micro-Enterprises (VSMEs) and Expert Pools (social mecia)**
- Socio-economic development based on **“Mobile Empowerment”**
- **“Leapfrogging”** stages in the economic creation of value
SUMMARY (3)

Internet of Jobs

• Evolution from the “Internet of Processes”
• Basis for the creation of new jobs
• Motor for the socio-economic development

Mobile Empowerment + Internet of Jobs

• A Strategy contributing to the solution of the “1.8 billion problem” (global short fall of formal jobs)

… the world greatest challenge!!!
SUMMARY (4)

Mobile Empowerment + Internet of Jobs + Big Data

Industry
(design, engineering, simulation, production, delivery, maintenance ...)

Business
(commerce, services, societal applications ...)

Industry 4.0

Mobile Empowerment
Possible Reaction of Large Enterprises to these trends

- **Collaboration Platforms** as Centers of Gravity
- **Ownership, control and management** of Collaboration Platforms

- Large Enterprises evolve to a network or cluster of several technology and application platforms (Collaboration Platforms)

- **Access to Collaboration Platforms** based on Internet Work Kiosks (there, were the Knowledge and Expertise, based on “Expert Communities”, is located)
Thank you for your kind attention

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